# PRO/CON ANALYSIS ON PROJECT ALTERNATIVES

**WORKING DRAFT** 

Updated June 15, 2007

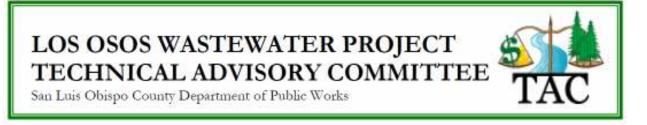
## LOS OSOS WASTEWATER PROJECT TECHNICAL ADVISORY COMMITTEE



San Luis Obispo County Department of Public Works

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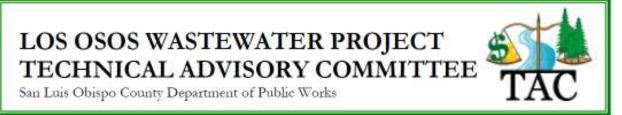


## **Cemetery**

#### **ENGINEERING & WATER RESOURCES**

CRITERIA	PROS	CONS
Sufficient in size to meet	Site is large and preliminary review indicates all of the property is	The property is partially occupied by a business enterprise which may
environmental and	usable with the exception of the cemetery operation and its potential	expand use on property.
potential future	expansion area, as well as a known archaeological site.	
expansion needs	Adjacent to other candidate plant sites – potentially advantageous for future expansion options	A known archaeological site is located on the property
Minimize fluid transport	Located in close proximity to agricultural lands and the cemetery	Located away from collection system area
costs	Located mid-way between town and potential spray fields	Located distant from the potential Broderson leach field site
Minimize land costs, to	Due to non-urbanized land use, the land value is less.	A viable business enterprise currently occupies a portion of the property
include environmental		and may expand to include a larger portion of the property in the future.
mitigation costs		Site located within 500 feet of a low density residential neighborhood
Site conditions with	Site is level and soils are suitable for construction	
regards to	Water table is not an apparent construction issue at this site	
constructability		

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## **Cemetery**

#### **ENVIRONMENTAL**

CRITERIA	PROS	CONS
<b>Construction impact</b>	Low population Density	Erosion
	Construction Traffic out of town	
Community impact	Low population density	Adjacent to Funeral Events
	Natural Screening	Unknown expansion of cemetery
Impact on biological	No apparent habitat value	Have to cross Los Osos Creek
resources		
System failure risk	Adequate for on-site containment	Proximity to Warden Lake
Impact on archaeological		Previously identified Archeological site
resources		
<b>Energy Use</b>	Potential for alternative energy	Higher energy requirements for pumping from & into town
Land use plans and	Compatible	
policies		
<b>Agriculture Land Use</b>	Non-Ag	
<b>Growth Inducement</b>		Potential for plant expansion could be growth inducing

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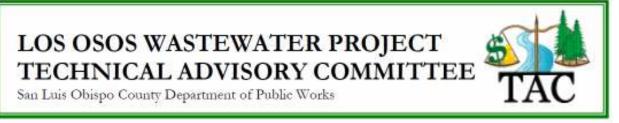


## **Cemetery**

#### **FINANCIAL**

CRITERIA	PROS	CONS
<ul> <li>Capital Costs</li> <li>Land Acquisition</li> <li>Cost of road impacts, repairs</li> <li>Cost implications to collection system,</li> </ul>	Less cost for road access due to proximity to LOVR	Cemetery occupies ~19A of 47.5; they require an additional 10A for expansion. Of the 17.5A remaining, ~8-9A are unusable (archeological area). This leaves ~8.5A (18%) usable land.  Willingness of seller is highly questionable  Cost of piping wastewater to treatment plant
piping • Flexibility for future expansion		Little or no room for future expansion  Construction nuisance (air quality, noise, traffic, visual impacts) due to proximity to cemetery
Operation & Maintenance  • Energy requirements	Proximity to farms for ag in-lieu or ag exchange	Ongoing nuisance to cemetery (air quality, odors, noise, traffic, visual impacts, light pollution)  Site does not allow for cost-saving disposal or alternative energy options
Financial Risks  • Potential costs relating to system failures		No space for storage to mitigate system failure risks
Funding Factors  • Potential for revenue generation		Insufficient acreage for revenue-generating options

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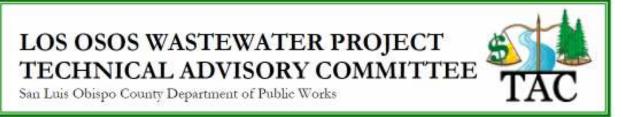


#### Giacomazzi

#### **ENGINEERING & WATER RESOURCES**

CRITERIA	PROS	CONS
Sufficient in size to meet	Site is large and preliminary review indicates all of the property is	
environmental and	useable	
potential future	No apparent environmental issues present that would constrain	
expansion needs	development and expansion options	
^	Adjacent to other candidate plant sites, this may be advantageous for	
	future expansion options.	
Minimize fluid transport	Located in close proximity to agricultural lands and the cemetery	Located away from collection system area
costs	Located mid-way between town and potential spray fields	Located distant from the potential Broderson leach field site
Minimize land costs, to	Due to non-urbanized land use, the land value is less	
include environmental	Reduced potential for odor control	
mitigation costs	Construction traffic out of town	
Site conditions with	Site is level and soils are suitable for construction	
regards to	Water table is not an apparent construction issue at this site	
constructability		

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## Giacomazzi

#### **ENVIRONMENTAL**

CRITERIA	PROS	CONS
<b>Construction impact</b>	Low population density	
	Construction traffic out of town	
Community impact	Low population density	
	Natural Screening	
Impact on biological		Have to cross Los Osos Creek
resources		
System failure risk	Adequate for on-site containment	Proximity to Warden Lake
Impact on archaeological		Unknown Archeological sites
resources		
Energy Use	Potential for alternative energy	Higher energy requirements for pumping from & into town
Land use plans and	Compatible	
policies		
Agriculture Land Use		Loss of Ag Land
		SRA
<b>Growth Inducement</b>		Potential for plant expansion could be growth inducing

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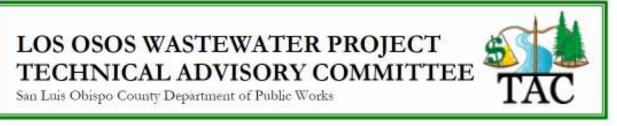
San Luis Obispo County Department of Public Works

## Giacomazzi

#### **FINANCIAL**

CRITERIA	PROS	CONS
Capital Costs	Approximately 16-18 of 38 acres (45%) are usable	- Cost to build intersection with LOVR
<ul><li>Land Acquisition</li></ul>	Potentially willing seller	- Cost of piping wastewater to treatment plant
<ul> <li>Cost of road impacts,</li> </ul>	Allows for cost-reducing treatment and solids options (e.g. ponds,	
repairs	composting)	
<ul> <li>Cost implications to</li> </ul>	Moderate cost to improve road access	
collection system,	Short distance to farms for ag in-lieu/ exchange	
piping	Allows for future expansion	
• Flexibility for future	Site allows for additional storage to mitigate system failure risks	
expansion		
Operation &	Proximity to farms for ag in-lieu or ag exchange	
Maintenance		
<ul><li>Energy requirements</li></ul>		
Financial Risks	Allows for storage to mitigate system failures	
<ul> <li>Potential costs relating</li> </ul>		
to system failures		
<b>Funding Factors</b>	Space for potential revenue- generating projects	
<ul> <li>Potential for revenue</li> </ul>		
generation	- Site is suitable for alternative energy, which may attract grants	

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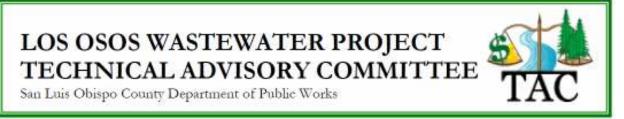


#### **Branin**

#### **ENGINEERING & WATER RESOURCES**

CRITERIA	PROS	CONS
Sufficient in size to meet	Adjacent to other candidate plant sites, this may be advantageous for	Shape, slope and size of property limit development and expansion
environmental and	future expansion options	options
potential future		Proximity to sensitive environmental areas may limit development and
expansion needs		expansion options
Minimize fluid transport	Located in close proximity to agricultural lands and the cemetery	Located away from collection system area
costs	Located mid-way between town and potential spray fields	Located distant from the potential Broderson leach field site
Minimize land costs, to	Due to non-urbanized land use, the land value is less	
include environmental	Less potential for odor control	
mitigation costs		
Site conditions with	A portion of the site is level and has soils that are suitable for	
regards to	construction	
constructability	Water table is not an apparent construction issue at this site	

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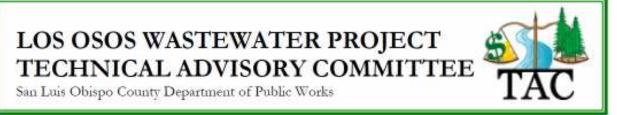


## **Branin**

#### **ENVIRONMENTAL**

CRITERIA	PROS	CONS
<b>Construction impact</b>	Low population Density	Erosion
•	Construction Traffic out of town	
Community impact	Low population density	
	Natural Screening	
Impact on biological		Have to cross Los Osos Creek
resources		
System failure risk		Proximity to Warden Lake
		May not be adequate for on-site containment
Impact on archaeological		Small known archeological site
resources		
Energy Use	Potential for alternative energy	Higher energy requirements for pumping from & into town
Land use plans and	Compatible	Loss of ag land
policies		SRA
•		May be under Williamson Act
Agriculture Land Use		
<b>Growth Inducement</b>		Potential for plant expansion could be growth inducing

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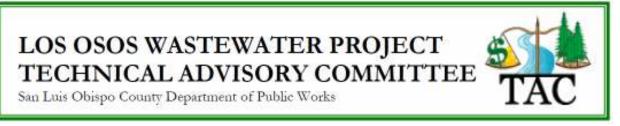


## **Branin**

#### **FINANCIAL**

CRITERIA	PROS	CONS
<b>Capital Costs</b>	Cost/ acre should be low due to site constraints	Available space limits options for treatment plant
<ul> <li>Land Acquisition</li> </ul>		
<ul> <li>Cost of road impacts,</li> </ul>		Insufficient space for future expansion, and/or disposal/ reuse options
repairs		Thick wish of himsefection and aciomically induced acttlement
<ul> <li>Cost implications to</li> </ul>		High risk of liquefaction and seismically-induced settlement – hydroconsolidation
collection system,		Cost of piping wastewater to treatment plant
piping		High costs for road access
• Flexibility for future		
expansion	Deciminate to Compact the Live to the second	
Operation &	Proximity to farms for ag in-lieu/ exchange	
Maintenance		
<ul> <li>Energy requirements</li> </ul>		
Financial Risks		
<ul> <li>Potential costs relating</li> </ul>		
to system failures		
<b>Funding Factors</b>	Potential wetlands for storage, which may attract grants	
<ul> <li>Potential for revenue</li> </ul>		
generation		

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### **Tri-W**

#### **ENGINEERING & WATER RESOURCES**

CRITERIA	PROS	CONS
ENGINEERING &		
WATER RESOURCES		
Sufficient in size to meet		Site is small and constrained in terms of future expansion options
environmental and		
potential future		No room for expansion for ancillary operations, such as bio-solids
expansion needs		treatment
Minimize fluid transport	Located within the collection system area	Located farthest away from the spray fields
costs	Located in close proximity to potential Broderson leach field	
Minimize land costs, to	LOCSD currently owns this property	Due to the proximity to near-by residence, engineered odor control
include environmental		features will be required
mitigation costs		
Site conditions with	Engineering work and preliminary site work already performed	Site requires higher construction costs
regards to		
constructability		

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## Tri-W

#### **ENVIRONMENTAL**

CRITERIA	PROS	CONS
<b>Construction impact</b>		Downtown traffic
•		Noise, dust
Community impact	Resource park	High population density
		Partial visual obstruction of Morro Rock
Impact on biological	Graded & conditions mitigated	ESHA
resources	No creek crossing for wastewater	
System failure risk		Proximity to Bay
		Site may not be adequate for on-site containment
Impact on archaeological	Tribal agreements in place	
resources		
Energy Use	No pumping into town	Pumping out of town
		Less potential for alternative energy
Land use plans and	Compatible	Inconsistent with LO vision statement
policies		
<b>Agriculture Land Use</b>	Non-Ag	
<b>Growth Inducement</b>	Limited expansion capability	

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## Tri-W

#### **FINANCIAL**

CRITERIA	PROS	CONS
Capital Costs	Citizens currently own the property	Only 36% usable land
<ul> <li>Land Acquisition</li> </ul>		Comparable land value estimated to be very high
<ul> <li>Cost of road impacts,</li> </ul>		Property currently under litigation
repairs		Cost to increase electrical capacity
<ul> <li>Cost implications to</li> </ul>	Central location reduces cost of collection piping	Proximity to church, library, community center, and residential areas
collection system, piping		Road impacts due to heavy vehicle traffic through main thoroughfare.
<ul> <li>Flexibility for future</li> </ul>		Possible need to expand LOVR
expansion		Increased cost of piping treated water to out of town sprayfields
		Limited space for future expansion or energy alternatives
Operation &		Site necessitates treatment with high energy requirements
Maintenance		
<ul> <li>Energy requirements</li> </ul>		Site does not allow for alternative energy options
Financial Risks	Proximity to Broderson leachfield	Limited space for storage to mitigate system failure risks
<ul> <li>Potential costs relating to system failures</li> </ul>		High financial risk in event of system failure due to proximity to Bay
<ul> <li>Site impacts on cost to mitigate seawater</li> </ul>		
intrusion		
<b>Funding Factors</b>		Limited acreage for revenue-generating options
<ul> <li>Potential for revenue</li> </ul>		
generation		

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